ST. JOSEPH'S SR. SEC. SCHOOL, NTPC, DIBIYAPUR
HOLIDAY ASSIGNMENTS 2022-23

CLASS XII – ENGLISH

Slums are a growing problem for our country. Do you agree or disagree. Write your views. Write your views based on the lesson 'Lost spring' and your own ideas in about 700 to 750 words.

CLASS XII – PHYSICS

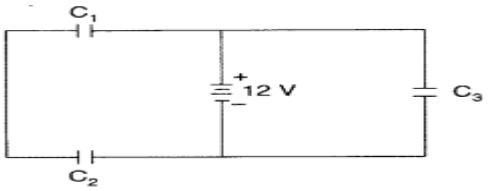
Q .1 A particle of mass m and charge q is released form rest in a uniform electric field of intensity E. calculate the kinetic energy it attains after moving a distance between the plates?

Q .2 Electric charge is uniformly distributed on the surface of a spherical balloon. Show how electric intensity and electric potential vary (a) on the surface (b) inside and (c) outside.

Q .3 A uniformly charged conducting sphere of 2.4 m diameter has a surface charge density of 80.0μC /m2. (a) Find the charge on the sphere. (b) What is the total electric flux leaving the surface of the sphere?

Q 4 An electric dipole of length 4 cm, when placed with its axis making an angle of 60° with a uniform electric field, experiences a torque of $4\sqrt{3}$ Nm. Calculate the potential energy of the dipole, if it has charge ± 8 n C.

Q .5 Three identical capacitors C1 C2 and C3 of capacitance 6 μF each are connected to a 12 V battery as shown.



Find(i) charge on each capacitor(ii) equivalent capacitance of the network(iii) energy stored in the network of capacitors.

Q .6 Two parallel plate X and Y capacitors, X and Y, have the same area of plates and same separation between them. X has air between the plates while Y contains a dielectric medium of εr = 4.(i) Calculate capacitance of each capacitor if equivalent capacitance of the combination is 4 μF.(ii) Calculate the potential difference between the plates of X and Y.(iii) What is the ratio of electrostatic energy stored in X and Y?

Q .7 (a) Depict the equipotential surfaces for a system of two identical positive point charges placed a distance 'd' apart.

(b) Deduce the expression for the potential energy of a system of two point charges q1 and q2 brought from infinity to the points r1and r2 respectively in the presence of external electric field E.

Q .8 Two-point charges qA = 3 μC and qB= –3 μC are located 20 cm apart in a vacuum.(i) What is the electric field at the midpoint O of the line AB joining the two charges?(ii) If a negative test charge of magnitude 1.5 × 10–9 C is placed at this point, what is the force experienced by the test charge?

CLASS XII – CHEMISTRY

Solve the questions of the following chapters

1. Solutions : 2.1 to 2.41
2. Italoalkanes and haloarenes : 10.1 to 10.36

CLASS XII – BIOLOGY

"Population stabilisation and birth control"

Instructions

1. Use A4 size sheets.
2. Use drawings and paintings to depict the various aspects.
3. Minimum 10 pages, maximum 15 pages.

CLASS XII – MATHEMATICS

Solve the problems asked in the last 10 years CBSE board exam from the chapters

1. continuity and differentiability
3. application of derivatives

CLASS XII – COMPUTER SCIENCE (PYTHON)

- All the students are divided into groups of 3 students.
- Each group will be having a project title like -> Hotel Management etc(They are free to select any topic)
- They have to prepare following pages for the project
  - Front page
  - Index page
  - Acknowledgement
  - About the project
  - Scope of the project
  - Coding
    - Registration page
    - Login page
    - Home page
- Output(Screen shot of the output of each page)
- Conclusion
- Bibliography

CLASS XII – ACCOUNTANCY

Analyse and evaluate the terms and conditions of Accounting for Partnership (fundamentals and admission of a new partner)

CLASS XII – BUSINESS STUDIES

Aanalyse the following topics :

Nature and Significance of Management
Principles of Management
Business Environment

CLASS XII – ECONOMICS

Class XII	
• Micro and Small Scale Industries	• Food Supply Channel in India
• Contemporary Employment situation in India	• Disinvestment policy of the government
• Goods and Services Tax Act and its Impact on GDP	• Health Expenditure (of any state)
• Human Development Index	• Inclusive Growth Strategy
• Self-help group	• Trends in Credit availability in India
• Monetary policy committee and its functions	• Role of RBI in Control of Credit
• Government Budget & its Components	• Trends in budgetary condition of India
• Exchange Rate determination – Methods and Techniques	• Currency War – reasons and repercussions
• Livestock – Backbone of Rural India	• Alternate fuel – types and importance
• Sarwa Siksha Abhiyan – Cost Ratio Benefits	• Golden Quadrilateral- Cost ratio benefit
• Minimum Support Prices	• Relation between Stock Price Index and Economic Health of Nation
• Waste Management in India – Need of the hour	• Minimum Wage Rate – approach and Application
• Digital India- Step towards the future	• Rain Water Harvesting – a solution to water crises
• Vertical Farming – an alternate way	• Silk Route- Revival of the past
• Make in India – The way ahead	• Bumper Production- Boon or Bane for the farmer
• Rise of Concrete Jungle- Trend Analysis	• Organic Farming – Back to the Nature
• Any other newspaper article and its evaluation on basis of economic principles	• **Any other topic**

A project on any one of the topic given above is to be done as a board project.
Page Limit : 15 to 20 pages

CLASS XII – PHYSICAL EDUCATION

Rules and regulation of athletics federation of India (AFI) Indian athletics annual 2022 to addition word athletics competition and Technical rules 2022 edition

XII - A

Roll no: 5,6,16,17,18,20,21	Sprint events+ Relay Race
Roll no. 31,32,41,,46,51,57,58	Middle and long distance
Roll no. 61,62,34,	About Officials Duties

XII – B

Roll no. 1,2,3,4	About Officials Duties
Roll no 5,6,7,8,9,10,11	Combined Events
Roll no 12,13,14,15,16,17,18	Throwing Events
Roll no 19,20,21,22,23,24,25	Jumping Events
Roll no. 26,27,28,29,30,31,32	Relay and Staple chase race

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